

atlantis), Silver-bordered Fritillary (*Boloria selene*), Two-spotted Skipper (*Euphyes bimacula*), and Long Dash (*Polites mystic*). The diurnal arctiid moth *Ctenucha virginica*, another northern species, was collected at one site and Baltimore Checkerspot (*Euphydryas phaeton*), a declining butterfly in the region, was recorded at two of the *C. harrisii* sites.

The Virginia population is assignable to the subspecies *Chlosyne harrisii liggetti* (Avinoff), which is known to inhabit the northeastern United States. It is larger and dorsally darker than the more northerly distributed nominate subspecies. A voucher specimen from the Back Creek site will be deposited in the Virginia Museum of Natural History, Martinsville, VA.

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SOME RECORDS OF CHEWING LICE FROM CARNIVORES IN VIRGINIA. — Chewing lice are insects placed in three suborders of the Order Phthiraptera. Most species parasitize birds and thus, some refer to those as the "bird lice". However, in North America a few species are ectoparasites of rodents, ungulates, and carnivores. While surveying mammals in Virginia for fleas I also encountered a few chewing lice. Three species of trichodectid chewing lice belonging to the suborder Ischnocera from carnivores are here reported, all of which are new state records.

All of the host mammals were road kills and were brushed or combed for ectoparasites. Lice were preserved in 70% ethanol and then processed by decolorization in 5% KOH overnight, dehydrated in an ethanol series, cleared in xylene, and mounted on slides in Canada balsam. Identifications were made using the key and illustrations in Whitaker (1982). All specimens have been deposited in the collections at the Virginia Museum of Natural History, Martinsville, VA.

Stachiella octomaculatus (Paine, 1912) is a parasite of Raccoons, *Procyon lotor* as documented by Emerson (1972) and Price et al. (2003). Three of 31 (10%) Raccoons were infested from these localities: 1♂ 4♀ ex *P. lotor*, 23 September 1982, New Kent, New Kent Co., VA; 1♂ 2♀ ex *P. lotor*, 15 October 1987, Annandale, Fairfax Co., VA; 8♂ 9♀ ex *P. lotor*, 1 March 1992, Troutdale, Smyth Co., VA. Raccoons from Fairfax Co. (n=26), and one each from Arlington, Fauquier, and Prince William counties were not infested.

Stachiella larseni Emerson, 1962 is a host-specific parasite of American Mink, *Neovison vison* according to Emerson (1972) and Price et al. (2003). Only 2 American Minks were examined, one of which (50%) was infested; 1♂ 4♀ and 1 nymph ex *N. vison*, 22 February 1997, Cross Junction, Frederick Co., VA. Another mink from Dinwiddie Co. was not infested.

Neotrichodectes mephitidis (Packard, 1873) is a parasite of skunks and has been taken from the Striped Skunk, *Mephitis mephitis* and the Hooded Skunk, *Mephitis macroura* as documented by Emerson (1972) and Price et al. (2003). In this study 2 of 7 (29%) Striped Skunks were infested from these localities: 4♂ 21♀ ex *M. mephitis*, 10 November 1982, Bull Run, Prince William Co., VA; 2♀ ex *M. mephitis*, 19 September 1983, Seven Fountains, Shenandoah Co., VA. Three Striped Skunks from Fairfax Co. and one each from Fauquier and Highland counties were not infested.

Other species of chewing lice are known to parasitize other carnivore species in North America but

none were taken in this study from Gray Fox (n=8), Red Fox (n=8), Bobcat (n=2), and Coyote (n=2) in Virginia. Most species of chewing lice are very host-specific and all specimens reported here were taken from the type host species. Prevalence of infestation and parasite loads were lower than those reported by Whitaker (1982). Some of the road-kill animals were not very fresh and no detergent washing technique was used to recover lice. These differences in technique may account for the low numbers.

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CHIRONOMID MIDGE HATCH LEADS TO MASS MORTALITY EVENT FOR CHIMNEY SWIFTS (*CHAETURA PELAGICA*). — Breeding populations of the Chimney Swift (*Chaetura pelagica*) have declined in most sectors of its breeding range in eastern North America since the initiation of standardized breeding bird surveys in 1966 (Sauer et al., 2012). Most of the decline has been attributed to range-wide reduction in the number of suitable nesting sites in chimneys and other manmade structures (Cink & Collins, 2002). However, a recent study suggested that populations at

the northern periphery of its breeding range were limited by factors other than the scarcity of nesting sites (Fitzgerald et al., 2014). A third study proposed that changes in the insect prey base after the broad-scale introduction of pesticides has adversely affected swift populations (Nocera et al., 2012). Finally, mass mortality events associated with strong storms have been implicated in the recent population decline (Dionne et al., 2008). Here we report a notable mortality event caused by vehicular traffic adjacent to a midge (Chironomidae) hatch.

On 6 October 2010, at 1715 h, CJA observed several hundred swifts foraging over Interstate 295 (38° 48.77' N, 77° 1.27' W) and the adjacent Blue Plains Advanced Wastewater Treatment Plant in Washington, District of Columbia. An estimated 300 swifts were dead on the north- and southbound lanes of the highway and mowed right-of-way (Fig. 1). CJA salvaged sixty of the more intact carcasses for preservation as museum specimens. On the morning of 7 October, we revisited the site and observed several hundred swifts foraging low over the wastewater treatment plant and highway. We salvaged an additional 30 carcasses from the highway right-of-way. A return trip on 8 October revealed only a few swifts foraging over the wastewater treatment plant. The closest treatment ponds were only 30 m from the mowed highway right of way. The District of Columbia Water and Sewer Authority (DCWSA) was contacted to determine if there was a direct connection between the swift mortality event and the sewage treatment plant. Representatives from the DCWSA, the District of Columbia Department of Health, Fire and Emergency Medical Services, and the National Guard Civil Support Team determined that there were no chemicals or hazardous materials at the wastewater treatment plant that could have caused the



Fig. 1. Chimney Swifts (*Chaetura pelagica*) killed by automotive traffic adjacent to the Blue Plains Advanced Wastewater Treatment Plant in the District of Columbia on 6 October 2010.